



# UNITED STATES PATENT AND TRADEMARK OFFICE

UNITED STATES DEPARTMENT OF COMMERCE  
United States Patent and Trademark Office  
Address: COMMISSIONER FOR PATENTS  
P.O. Box 1450  
Alexandria, Virginia 22313-1450  
www.uspto.gov

APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/033,362	12/27/2001	Yusaku Katoh	01848/LH	7805
1933	7590	01/29/2004	EXAMINER	
FRISHAUF, HOLTZ, GOODMAN & CHICK, PC			MAKI, STEVEN D	
767 THIRD AVENUE			ART UNIT	
25TH FLOOR			PAPER NUMBER	
NEW YORK, NY 10017-2023			1733	

DATE MAILED: 01/29/2004

Please find below and/or attached an Office communication concerning this application or proceeding.

## Office Action Summary

Application No.

10/033,362

Applicant(s)

KATOH ET AL.

Examiner

Steven D. Maki

Art Unit

1733

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

### Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133).
- Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

### Status

- 1) ☒ Responsive to communication(s) filed on 19 December 2003.
- 2a) ☐ This action is **FINAL**.                      2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

### Disposition of Claims

- 4) ☒ Claim(s) 45-48 is/are pending in the application.
- 4a) Of the above claim(s) \_\_\_\_\_ is/are withdrawn from consideration.
- 5) ☐ Claim(s) \_\_\_\_\_ is/are allowed.
- 6) ☒ Claim(s) 45-48 is/are rejected.
- 7) ☐ Claim(s) \_\_\_\_\_ is/are objected to.
- 8) ☐ Claim(s) \_\_\_\_\_ are subject to restriction and/or election requirement.

### Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on \_\_\_\_\_ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.  
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).  
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

### Priority under 35 U.S.C. §§ 119 and 120

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).  
a) ☐ All   b) ☐ Some \*   c) ☐ None of:  
1. ☐ Certified copies of the priority documents have been received.  
2. ☐ Certified copies of the priority documents have been received in Application No. \_\_\_\_\_.  
3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).  
\* See the attached detailed Office action for a list of the certified copies not received.
- 13) ☐ Acknowledgment is made of a claim for domestic priority under 35 U.S.C. § 119(e) (to a provisional application) since a specific reference was included in the first sentence of the specification or in an Application Data Sheet. 37 CFR 1.78.  
a) ☐ The translation of the foreign language provisional application has been received.
- 14) ☐ Acknowledgment is made of a claim for domestic priority under 35 U.S.C. §§ 120 and/or 121 since a specific reference was included in the first sentence of the specification or in an Application Data Sheet. 37 CFR 1.78.

### Attachment(s)

- 1) ☒ Notice of References Cited (PTO-892)                      4) ☐ Interview Summary (PTO-413) Paper No(s). \_\_\_\_\_
- 2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)                      5) ☐ Notice of Informal Patent Application (PTO-152)
- 3) ☐ Information Disclosure Statement(s) (PTO-1449) Paper No(s) \_\_\_\_\_                      6) ☐ Other: \_\_\_\_\_

Art Unit: 1733

1) A request for continued examination under 37 CFR 1.114, including the fee set forth in 37 CFR 1.17(e), was filed in this application after final rejection. Since this application is eligible for continued examination under 37 CFR 1.114, and the fee set forth in 37 CFR 1.17(e) has been timely paid, the finality of the previous Office action has been withdrawn pursuant to 37 CFR 1.114. Applicant's submission filed on 12-19-03 has been entered.

2) The following is a quotation of the second paragraph of 35 U.S.C. 112:

The specification shall conclude with one or more claims particularly pointing out and distinctly claiming the subject matter which the applicant regards as his invention.

3) Claims 45-48 are rejected under 35 U.S.C. 112, second paragraph, as being indefinite for failing to particularly point out and distinctly claim the subject matter which applicant regards as the invention.

In claim 1, the scope and meaning of "rib-lug-type tread pattern" is ambiguous. One of ordinary skill in the art is not reasonably apprised of the scope of protection afforded by such language. It is unclear for example if this description requires a circumferential rib in combination with lugs or if "rib" is merely redundant to "lug". It is unclear if this language, which read in light of the claimed tread grooves requires the tread grooves to separate the lugs. It is unclear if "rib-lug-type tread pattern" reads on or excludes the tread pattern illustrated in figure 5 of applicant's original disclosure.

4) The following is a quotation of the first paragraph of 35 U.S.C. 112:

The specification shall contain a written description of the invention, and of the manner and process of making and using it, in such full, clear, concise, and exact terms as to enable any person skilled in the art to which it pertains, or with which it is most nearly connected, to make and use the same and shall set forth the best mode contemplated by the inventor of carrying out his invention.

Art Unit: 1733

5) Claims 45-48 are rejected under 35 U.S.C. 112, first paragraph, as failing to comply with the written description requirement. The claim(s) contains subject matter which was not described in the specification in such a way as to reasonably convey to one skilled in the relevant art that the inventor(s), at the time the application was filed, had possession of the claimed invention.

In claim 45, the subject matter which was not described in the specification in such a way as to reasonably convey to one skilled in the relevant art that the inventor(s), at the time the application was filed, had possession of the claimed invention (i.e., the new matter) is "rib-lug-type tread pattern". Although the original disclosure illustrates a tread pattern (figure 5), the tread pattern in figure 5 does not contain a rib. In other words, "rib-lug-type tread pattern" (which has no explicit basis in the original disclosure and is ambiguous as noted above in the 112 second paragraph rejection) does not appear to read on the tread pattern illustrated in figure 5.

6) The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

7) Claim 45 is rejected under 35 U.S.C. 103(a) as being unpatentable over Chandler (WO 97/18959) in view of Haydon (WO 96/05917) and optionally Hawkinson (US Des. 153431).

Chandler discloses a non-pneumatic tire having a tread formation comprising two sets of "holes" (cavities) and a row of "lugs" (tread elements) separated on each side of the tire by "width direction grooves" wherein (1) the width direction grooves are

Art Unit: 1733

connected by inclined narrow width grooves and (2) the number of holes is identical to the number of width direction grooves. See figure 10. Chandler substantially discloses the claimed invention except for the shallow small sized grooves.

As to claim 45, it would have been obvious to one of ordinary skill in the art to include shallow small size grooves in each shoulder region of Chandler's tread such that the shallow small size grooves are parallel to the width direction grooves since (1) Haydon, which like Chandler is directed to a non-pneumatic tire having tread grooves and cavities, suggests forming in each shoulder region of such a tire, relatively shallow grooves such that the shallow grooves are parallel to width direction tread grooves (see figure 4) and optionally (2) Hawkinson shows and thereby suggests providing relatively shallow small size grooves between width direction grooves such that the relatively shallow small size grooves are parallel to the width direction grooves (see figures 1 and 2). No unexpected results over the applied prior art has been shown.

8) Claim 46 is rejected under 35 U.S.C. 103(a) as being unpatentable over Chandler in view of Haydon and optionally Hawkinson as applied above and further in view of Sweet (US 649775).

As to claim 46, it would have been obvious to one of ordinary skill in the art to provide Chandler's non-pneumatic tire with the claimed inner transverse grooves since Sweet suggests forming transverse grooves f on the inner surface of a non-pneumatic tire so that the base is flexible and can contract lengthwise in applying the tire to a rim and thereby avoid stretching of the tread (page 2 lines 4-17).

Art Unit: 1733

9) Claim 47 is rejected under 35 U.S.C. 103(a) as being unpatentable over Chandler in view of Haydon and optionally Hawkinson as applied above and further in view of Carmont (US 597313).

As to claim 47, it would have been obvious to one of ordinary skill in the art to provide the claimed projections on an inner circumferential portion of both of the side surfaces of Chandler's tire since Carmont, also directed to non-pneumatic tire, suggests forming "projections" (rectangular excrescences D) on an inner circumferential portion of such a tire so that the tire will be held to the rim by self attachment (page 1 right column lines 48-51).

10) Claim 48 is rejected under 35 U.S.C. 103(a) as being unpatentable over Chandler in view of Haydon and Sweet and optionally Hawkinson as applied above and further in view of Carmont.

Carmont is applied as above (the limitation of claim 48 would have been obvious for the same reasons given above for claim 47).

#### Remarks

11) Applicant's arguments with respect to claims 45-48 have been considered but are moot in view of the new ground(s) of rejection.

12) Any inquiry concerning this communication or earlier communications from the examiner should be directed to Steven D. Maki whose telephone number is (571) 272-1221. The examiner can normally be reached on Mon. - Fri. 7:30 AM - 4:00 PM.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Richard Crispino can be reached on (571) 272-1226. The fax phone

Application/Control Number: 10/033,362

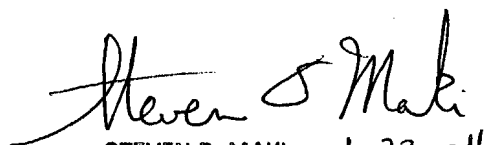
Page 6

Art Unit: 1733

number for the organization where this application or proceeding is assigned is (703)

872-9306.

Steven D. Maki  
January 23, 3004

  
STEVEN D. MAKI 1-23-04  
PRIMARY EXAMINER  
~~GROUP 1300~~  
Av 1733